

Abstract

Adjustable filter and method for adjusting the frequency

5 For frequency tuning of a component operating with acoustic waves, it is proposed
to provide a GDE layer (GDE) in close mechanical contact with a piezoelectric
excitation layer (PS, PS1) which can significantly change their rigidity under a
mechanical warping and therewith the sound propagation speed, whereby the
degree of the material expansion or, respectively, compression can be adjusted by
10 means of two control voltage electrodes (ES2) and a piezoelectric tuning layer (PS,
PS2).

Figure 1

15